IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

RAINDANCE TECHNOLOGIES, INC. and)	
THE UNIVERSITY OF CHICAGO,)	
)	
Plaintiffs and Counterclaim Defendants,)	
)	C.A. No. 15-152-RGA
v.)	
)	JURY TRIAL DEMANDED
10X GENOMICS, INC.,)	
)	
Defendant and Counterclaim Plaintiff.)	

10X GENOMICS, INC.'S ANSWER AND COUNTERCLAIMS TO PLAINTIFFS' SECOND AMENDED COMPLAINT

Defendant 10X Genomics, Inc. ("10X") hereby answers the Second Amended Complaint ("SAC") of RainDance Technologies, Inc. ("RainDance") and the University of Chicago (collectively, "Plaintiffs") as follows:

NATURE OF THE PROCEEDING

- 1. 10X admits that Plaintiffs purport to bring claims under the patent laws of the United States, Title 35 of the United States Code. Except as expressly admitted, 10X denies each and every allegation set forth in paragraph 1 of the SAC.
- 2. 10X admits that Plaintiffs purport to bring claims under the patent laws of the United States, Title 35 of the United States Code, which relate to U.S. Patent Nos. 7,129,091 (the "091 patent"); 8,304,193 (the "193 patent"); 8,329,407 (the "407 patent"); 8,822,148 (the "148 patent"); and 8,889,083 (the "083 patent") (collectively, the "Ismagilov patents"). Except as expressly admitted, 10X denies each and every allegation set forth in paragraph 2 of the SAC.
- 3. 10X admits that RainDance purports to bring claims under the patent laws of the United States, Title 35 of the United States Code, which relate to U.S. Patent No. 8,658,430 (the

"'430 patent") (collectively with the Ismagilov patents, the "Asserted Patents"). Except as expressly admitted, 10X denies each and every allegation set forth in paragraph 3 of the SAC.

THE PARTIES

- 4. 10X is informed and believes, and on that basis admits, that RainDance is a corporation organized and existing under the laws of the State of Delaware, having a principal place of business at 749 Middlesex Turnpike, Billerica, MA 01821.
- 5. 10X is informed and believes, and on that basis admits, that the University of Chicago is an Illinois institution with a principal place of business at 5801 S. Ellis Ave., Chicago, IL 60637. 10X lacks sufficient knowledge or information to form a belief as to the truth or falsity of the remaining allegations set forth in paragraph 5 and on that basis denies them.
- 6. 10X admits that 10X is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 7068 Koll Center Parkway, Suite 401, Pleasanton, CA 94566.

JURISDICTION AND VENUE

- 7. 10X admits that Plaintiffs purport to bring claims under the patent laws of the United States, Title 35 of the United States Code. Except as expressly admitted, 10X denies each and every allegation set forth in paragraph 7 of the SAC.
- 8. 10X admits that Plaintiffs contend that subject matter jurisdiction exists in this action under 28 U.S.C. §§ 1331 and 1338(a). Except as expressly admitted, 10X denies each and every allegation contained in paragraph 8 of the SAC.
- 9. 10X admits that, for the purposes of this lawsuit only, this Court has personal jurisdiction over 10X. 10X admits that it is organized under the laws of the State of Delaware. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 9 of the SAC.

10. 10X admits that the SAC purports to base venue on 28 U.S.C. §§ 1391(b) and (c), and 28 U.S.C. § 1400(b). Except as expressly admitted, 10X denies each and every allegation contained in paragraph 10 of the SAC.

BACKGROUND

- 11. 10X lacks sufficient knowledge or information to form a belief as to the truth or falsity of the allegations set forth in paragraph 11 and on that basis denies them.
- 12. 10X admits that it markets, or has marketed, devices referred to as the ChromiumTM Controller and the GemCodeTM Platform. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 12 of the SAC.
- 13. 10X admits that Exhibit 1¹ appears to be an excerpt of a version of the "Technology" section of 10X's website, which exhibit contains, in part, text selectively contained within certain of the quotations in paragraph 13. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 13 of the SAC.
- 14. 10X admits that it has marketed the GemCode[™] Platform, and that it presented certain information regarding the GemCode[™] Platform on or around January 14, 2015 at the JP Morgan Healthcare Conference. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 14 of the SAC.
- 15. 10X admits that it launched the GemCode™ Platform in or around February 2015. 10X admits that the GemCode™ Platform included instrumentation, reagents, and software. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 15 of the SAC.

¹ All references to "Exhibits" refer to the exhibits to the SAC.

- 16. 10X admits that it presented certain information regarding the GemCode™ Platform on or around February 27, 2015 at Advances in Genome Biology and Technology ("AGBT") in Marco Island, Florida. 10X admits that Exhibit 2 appears to be a copy of certain slides from a document titled "Long Range Applications with Short Read Sequencing," which exhibit contains, in part, text and images selectively contained within certain of the quotations in paragraph 16. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 16 of the SAC.
- 17. 10X admits that it announced the full commercial release of the GemCodeTM Platform on or around June 30, 2015. 10X admits that Exhibit 3 appears to be an excerpt of a document titled "10X Genomics Commences Shipments of the GemCode Platform," which exhibit contains, in part, text selectively contained within certain of the quotations in paragraph 17. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 17 of the SAC.
- 18. 10X admits that it presented certain information regarding the GemCodeTM Platform on or around August 5, 2015, during a webinar by Michael Schnall-Levin. 10X admits that Exhibit 4 appears to be an audio and video copy of this webinar, titled "Unlock Powerful Genomics Insights with Linked-Reads: Introducing the GemCode Platform," which exhibit contains, in part, text and images selectively contained within certain of the quotations in paragraph 18. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 18 of the SAC.
- 19. 10X admits that Exhibit 4 appears to be an audio and video copy of a webinar, titled "Unlock Powerful Genomics Insights with Linked-Reads: Introducing the GemCode Platform," which exhibit contains, in part, text and images selectively contained within certain of

the quotations in paragraph 19. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 19 of the SAC.

- 20. 10X admits that Exhibit 5 appears to be a copy of an article titled "Haplotyping germline and cancer genomes with high-throughput linked-read sequencing," which lists certain 10X employees and officers as authors and was published online on or around February 1, 2016. 10X admits that Exhibit 5 contains, in part, text and images selectively contained within certain of the quotations in paragraph 20. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 20 of the SAC.
- 21. 10X admits that it currently markets the ChromiumTM Controller, and that it introduced the ChromiumTM Controller on or around February 11, 2016. 10X admits that Exhibit 6 appears to be a copy of a version of a product brochure for the ChromiumTM Controller titled "Introducing the ChromiumTM System: One system, one workflow, powerful new sequencing applications," which exhibit contains, in part, text and images selectively contained within the quotation in paragraph 21. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 21 of the SAC.
- 22. 10X admits that it currently markets ChromiumTM Single Cell 3', ChromiumTM Genome, ChromiumTM Exome, and GemCodeTM GemCode Kit. 10X admits that it introduced the ChromiumTM Single Cell 3', ChromiumTM Genome, and ChromiumTM Exome on or around February 11, 2016. 10X admits that Exhibit 7 appears to be an excerpt of a version of the "Reagents" section of 10X's website. 10X admits that Exhibit 8 appears to be an excerpt of a version of the "Applications" section of 10X's website, which exhibit contains, in part, text selectively contained within certain of the quotations in paragraph 22. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 22 of the SAC.

- 23. 10X admits that Exhibit 8 appears to be an excerpt of a version of the "Applications" section of 10X's website and that Exhibit 9 appears to be an excerpt of a version of the "Home" section of 10X's website. 10X admits that Exhibit 8 and 9 contain, in part, text selectively contained within certain of the quotations in paragraph 23. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 23 of the SAC.
- 24. 10X admits that certain employees and officers of 10X have at times attended scientific meetings and seminars, including, but not limited to, JP Morgan Healthcare Conference, AGBT, and the American Association for Cancer Research, and at times have interacted with representatives from RainDance at those meetings. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 24 of the SAC.
- 25. 10X admits that its chief operating officer, Kevin Ness, has on at least one occasion interacted with Darren Link. 10X admits that Exhibit 10 appears to be an excerpt of a version of the "Company" section of 10X's website. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 25 of the SAC.
- 26. 10X admits that Exhibits 17-22 purport to be claim charts. Exhibits 17-22 cite to Exhibits 4, 5, 11, 12, 13, 15, 16, 37, 38, 39, 40, 41 and 42. 10X admits that Exhibit 4 appears to be an audio and video copy of a webinar, titled "Unlock Powerful Genomics Insights with Linked-Reads: Introducing the GemCode Platform," that Exhibit 5 appears to be a copy of an article titled "Haplotyping germline and cancer genomes with high-throughput linked-read sequencing," that Exhibit 11 appears to be a copy of U.S. Patent No. 7,129,091 (the "'091 patent"), that Exhibit 12 appears to be a copy of U.S. Patent No. 8,304,193 (the "'193 patent"), that Exhibit 13 appears to be a copy of U.S. Patent No. 8,329,407 (the "'407 patent"), that Exhibit 15 (not Exhibit 14 as stated in Exhibit 20) appears to be a copy of U.S. Patent No.

8,822,148 (the "148 patent"), that Exhibit 16 (not Exhibit 15 as stated in Exhibit 21) appears to be a copy of U.S. Patent No. 8,889,083 (the "083 patent"), that Exhibit 37 appears to be a copy of a slide titled "High-Throughput GEM Generation," that Exhibit 38 appears to be an audio and video copy of a presentation titled "Long Range Applications with Short Read Sequencing," that Exhibit 39 appears to be excerpts of versions of the "Technology" and "Products" sections of 10X's website, that Exhibit 40 appears to be a copy of a provisional patent application titled "Fluidic Devices, Systems, and Methods for Encapsulating and Partitioning Reagents, and Applications of the Same," that Exhibit 41 appears to be a copy of an article titled "AGBT16 10X Genomics workshop," and that Exhibit 42 appears to be a copy of U.S. Patent Application Publication No. US 2015/0005199. 10X admits that Exhibits 4, 5, 11, 12, 13, 15, 16, 37, 38, 39, 40, 41 and 42 contain, in part, text and images selectively contained within certain of the quotations in Exhibits 17-22. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 26 of the SAC, including each and every allegation contained in Exhibits 17-22 to the SAC.

COUNT I (By RainDance and the University of Chicago)

- 27. 10X repeats and incorporates by reference each of its responses to paragraphs 1 through 26 above.
- 28. 10X admits that Exhibit 11 appears to be a copy of U.S. Patent No. 7,129,091 titled "Device and Method for Pressure-Driven Plug Transport and Reaction" (the "'091 patent"), which states on its face that it was issued on October 31, 2006. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 28 of the SAC.
- 29. 10X admits that Rustem F. Ismagilov, Joshua David Tice, and Helen Song are listed as inventors on the face of the '091 patent and that the University of Chicago is listed as

the assignee on the face of the '091 patent. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 29 of the SAC.

- 30. 10X lacks sufficient knowledge or information to form a belief as to the truth or falsity of the allegations set forth in paragraph 30 and on that basis denies them.
- 31. 10X admits that Exhibit 17 purports to be a claim chart. Exhibit 17 cites to Exhibits 4, 5, 11, 37, 39, 40, and 41. 10X admits that Exhibit 4 appears to be an audio and video copy of a webinar, titled "Unlock Powerful Genomics Insights with Linked-Reads: Introducing the GemCode Platform," that Exhibit 5 appears to be a copy of an article titled "Haplotyping germline and cancer genomes with high-throughput linked-read sequencing," that Exhibit 11 appears to be a copy of U.S. Patent No. 7,129,091 (the "'091 patent"), that Exhibit 37 appears to be a copy of a slide titled "High-Throughput GEM Generation," that Exhibit 39 appears to be excerpts of versions of the "Technology" and "Products" sections of 10X's website, that Exhibit 40 appears to be a copy of a provisional patent application titled "Fluidic Devices, Systems, and Methods for Encapsulating and Partitioning Reagents, and Applications of the Same," and that Exhibit 41 appears to be a copy of an article titled "AGBT16 10X Genomics workshop." 10X admits that Exhibits 4, 5, 11, 37, 39, 40, and 41 contain, in part, text and images selectively contained within certain of the quotations in Exhibit 17. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 31 of the SAC, including each and every allegation contained in Exhibit 17 to the SAC.
- 32. 10X admits that it has had knowledge of the '091 patent since at least the filing of the Complaint in this litigation. 10X admits that Exhibit 23 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 13/966,150, which is titled "Capsule Array Devices and Methods of Use;" that Exhibit 24 appears to be a copy of an

"Information Disclosure Statement By Applicant" filed in Application No. 14/104,650, which is titled "Methods and Systems for Processing Polynucleotides;" that Exhibit 25 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/175,935, which is titled "Partitioning And Processing of Analytes and Other Species;" and that Exhibit 26 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/175,973, which is titled "Polynucleotide Barcode Generation." 10X admits that each Ismagilov patent purports to claim priority to U.S. Provisional Application No. 60/379,927. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 32 of the SAC.

- 33. 10X denies each and every allegation contained in paragraph 33 of the SAC.
- 34. 10X admits that Exhibit 8 appears to be an excerpt of a version of the "Applications" section of 10X's website and that Exhibit 6 appears to be a copy of a version of a product brochure for the Chromium™ Controller titled "Introducing the Chromium™ System: One system, one workflow, powerful new sequencing applications." 10X admits that Exhibits 8 and 6 contain, in part, text selectively contained within certain of the quotations in paragraph 34. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 34 of the SAC.
- 35. 10X admits that Exhibit 29 appears to be a copy of a document titled "10X Genomics Announces Collaboration with QIAGEN, N.V. for Co-Marketing and Co-Development of Sequencing and Single Cell Analysis Workflows and Informatics Solutions," that Exhibit 30 appears to be a copy of a document titled "10X Genomics Announces Co-Marketing Partnership with Illumina for Linked-Read Sequencing," and that Exhibit 31 appears to be a copy of a document titled "Agilent Technologies and 10X Genomics Announce

Collaboration to Develop a Premium Exome." 10X admits that Exhibits 29, 30, and 31 contain, in part, text selectively contained within certain of the quotations in paragraph 35. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 35 of the SAC.

- 36. 10X admits that Exhibit 32 appears to be an excerpt of a version of the "Downloads" section of 10X's website, that Exhibit 33 appears to be an excerpt of a version of the "Installation" section of 10X's website, that Exhibit 34 appears to be an excerpt of a version of the "Products" section of 10X's website, that Exhibit 35 appears to be an excerpt of a version of the "Community" section of 10X's website, and that Exhibit 36 appears to be an excerpt of a version of the "Software" section of 10X's website. 10X admits that Exhibits 34 and 35 contain, in part, text selectively contained within certain of the quotations in paragraph 36. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 36 of the SAC.
 - 37. 10X denies each and every allegation contained in paragraph 37 of the SAC.
 - 38. 10X denies each and every allegation contained in paragraph 38 of the SAC.
 - 39. 10X denies each and every allegation contained in paragraph 39 of the SAC.
 - 40. 10X denies each and every allegation contained in paragraph 40 of the SAC.

COUNT II (BY RAINDANCE AND THE UNIVERSITY OF CHICAGO)

- 41. 10X repeats and incorporates by reference each of its responses to paragraphs 1 through 26 above.
- 42. 10X admits that Exhibit 12 appears to be a copy of U.S. Patent No. 8,304,193 titled "Method for Conducting an Autocatalytic Reaction in Plugs in a Microfluidic System" (the "'193 patent"), which states on its face that it was issued on November 6, 2012. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 42 of the SAC.
- 43. 10X admits that Rustem F. Ismagilov, Joshua David Tice, Cory John Gerdts, and Bo Zheng are listed as inventors on the face of the '193 patent and that the University of Chicago

is listed as the assignee on the face of the '193 patent. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 43 of the SAC.

- 44. 10X lacks sufficient knowledge or information to form a belief as to the truth or falsity of the allegations set forth in paragraph 44 and on that basis denies them.
- 45. 10X admits that Exhibit 18 purports to be a claim chart. Exhibit 18 cites to Exhibits 4, 5, 12, 37, 39, and 40. 10X admits that Exhibit 4 appears to be an audio and video copy of a webinar, titled "Unlock Powerful Genomics Insights with Linked-Reads: Introducing the GemCode Platform," that Exhibit 5 appears to be a copy of an article titled "Haplotyping germline and cancer genomes with high-throughput linked-read sequencing," that Exhibit 12 appears to be a copy of U.S. Patent No. 8,304,193 (the "'193 patent"), that Exhibit 37 appears to be a copy of a slide titled "High-Throughput GEM Generation," that Exhibit 39 appears to be excerpts of versions of the "Technology" and "Products" sections of 10X's website, and that Exhibit 40 appears to be a copy of a provisional patent application titled "Fluidic Devices, Systems, and Methods for Encapsulating and Partitioning Reagents, and Applications of the Same." 10X admits that Exhibits 4, 5, 12, 37, 39, and 40 contain, in part, text and images selectively contained within certain of the quotations in Exhibit 18. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 45 of the SAC, including each and every allegation contained in Exhibit 18 to the SAC.
- 46. 10X admits that it has had knowledge of the '193 patent since at least the filing of the Complaint in this litigation. 10X admits that Exhibit 23 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 13/966,150, which is titled "Capsule Array Devices and Methods of Use;" that Exhibit 24 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/104,650, which is

titled "Methods and Systems for Processing Polynucleotides;" that Exhibit 25 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/175,935, which is titled "Partitioning And Processing of Analytes and Other Species;" and that Exhibit 26 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/175,973, which is titled "Polynucleotide Barcode Generaion." 10X admits that each Ismagilov patent purports to claim priority to U.S. Provisional Application No. 60/379,927. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 46 of the SAC.

- 47. 10X denies each and every allegation contained in paragraph 47 of the SAC.
- 48. 10X admits that Exhibit 8 appears to be an excerpt of a version of the "Applications" section of 10X's website and that Exhibit 6 appears to be a copy of a version of a product brochure for the Chromium™ Controller titled "Introducing the Chromium™ System: One system, one workflow, powerful new sequencing applications." 10X admits that Exhibits 8 and 6 contain, in part, text selectively contained within certain of the quotations in paragraph 48. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 48 of the SAC.
- 49. 10X admits that Exhibit 29 appears to be a copy of a document titled "10X Genomics Announces Collaboration with QIAGEN, N.V. for Co-Marketing and Co-Development of Sequencing and Single Cell Analysis Workflows and Informatics Solutions," that Exhibit 30 appears to be a copy of a document titled "10X Genomics Announces Co-Marketing Partnership with Illumina for Linked-Read Sequencing," and that Exhibit 31 appears to be a copy of a document titled "Agilent Technologies and 10X Genomics Announce Collaboration to Develop a Premium Exome." 10X admits that Exhibits 29, 30, and 31 contain,

in part, text selectively contained within certain of the quotations in paragraph 49. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 49 of the SAC.

- 50. 10X admits that Exhibit 32 appears to be an excerpt of a version of the "Downloads" section of 10X's website, that Exhibit 33 appears to be an excerpt of a version of the "Installation" section of 10X's website, that Exhibit 34 appears to be an excerpt of a version of the "Products" section of 10X's website, that Exhibit 35 appears to be an excerpt of a version of the "Community" section of 10X's website, and that Exhibit 36 appears to be an excerpt of a version of the "Software" section of 10X's website. 10X admits that Exhibits 34 and 35 contain, in part, text selectively contained within certain of the quotations in paragraph 50. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 50 of the SAC.
 - 51. 10X denies each and every allegation contained in paragraph 51 of the SAC.
 - 52. 10X denies each and every allegation contained in paragraph 52 of the SAC.
 - 53. 10X denies each and every allegation contained in paragraph 53 of the SAC.
 - 54. 10X denies each and every allegation contained in paragraph 54 of the SAC.

COUNT III (BY RAINDANCE AND THE UNIVERSITY OF CHICAGO)

- 55. 10X repeats and incorporates by reference each of its responses to paragraphs 1 through 26 above.
- 56. 10X admits that Exhibit 13 appears to be a copy of U.S. Patent No. 8,329,407 titled "Methods for Conducting Reactions Involving Biological Molecules in Plugs in a Microfluidic System" (the "'407 patent"), which states on its face that it was issued on December 11, 2012. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 56 of the SAC.
- 57. 10X admits that Rustem F. Ismagilov, Joshua David Tice, Cory John Gerdts, and Bo Zheng are listed as inventors on the face of the '407 patent and that the University of Chicago

is listed as the assignee on the face of the '407 patent. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 57 of the SAC.

- 58. 10X lacks sufficient knowledge or information to form a belief as to the truth or falsity of the allegations set forth in paragraph 58 and on that basis denies them.
- 59. 10X admits that Exhibit 19 purports to be a claim chart. Exhibit 19 cites to Exhibits 4, 5, 13, 37, 39, and 40. 10X admits that Exhibit 4 appears to be an audio and video copy of a webinar, titled "Unlock Powerful Genomics Insights with Linked-Reads: Introducing the GemCode Platform," that Exhibit 5 appears to be a copy of an article titled "Haplotyping germline and cancer genomes with high-throughput linked-read sequencing," that Exhibit 13 appears to be a copy of U.S. Patent No. 8,329,407 (the "'407 patent"), that Exhibit 37 appears to be a copy of a slide titled "High-Throughput GEM Generation," that Exhibit 39 appears to be excerpts of versions of the "Technology" and "Products" sections of 10X's website, and that Exhibit 40 appears to be a copy of a provisional patent application titled "Fluidic Devices, Systems, and Methods for Encapsulating and Partitioning Reagents, and Applications of the Same." 10X admits that Exhibits 4, 5, 13, 37, 39, and 40, contain, in part, text and images selectively contained within certain of the quotations in Exhibit 19. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 59 of the SAC, including each and every allegation contained in Exhibit 19 to the SAC.
- 60. 10X admits that it has had knowledge of the '407 patent since at least the filing of the Complaint in this litigation. 10X admits that Exhibit 23 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 13/966,150, which is titled "Capsule Array Devices and Methods of Use;" that Exhibit 24 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/104,650, which is

titled "Methods and Systems for Processing Polynucleotides;" that Exhibit 25 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/175,935, which is titled "Partitioning And Processing of Analytes and Other Species;" and that Exhibit 26 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/175,973, which is titled "Polynucleotide Barcode Generation." 10X admits that each Ismagilov patent purports to claim priority to U.S. Provisional Application No. 60/379,927. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 60 of the SAC.

- 61. 10X denies each and every allegation contained in paragraph 61 of the SAC.
- 62. 10X admits that Exhibit 8 appears to be an excerpt of a version of the "Applications" section of 10X's website and that Exhibit 6 appears to be a copy of a version of a product brochure for the ChromiumTM Controller titled "Introducing the ChromiumTM System: One system, one workflow, powerful new sequencing applications." 10X admits that Exhibits 8 and 6 contain, in part, text selectively contained within certain of the quotations in paragraph 62. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 62 of the SAC.
- 63. 10X admits that Exhibit 29 appears to be a copy of a document titled "10X Genomics Announces Collaboration with QIAGEN, N.V. for Co-Marketing and Co-Development of Sequencing and Single Cell Analysis Workflows and Informatics Solutions," that Exhibit 30 appears to be a copy of a document titled "10X Genomics Announces Co-Marketing Partnership with Illumina for Linked-Read Sequencing," and that Exhibit 31 appears to be a copy of a document titled "Agilent Technologies and 10X Genomics Announce Collaboration to Develop a Premium Exome." 10X admits that Exhibits 29, 30, and 31 contain,

in part, text selectively contained within certain of the quotations in paragraph 63. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 63 of the SAC.

- 64. 10X admits that Exhibit 32 appears to be an excerpt of a version of the "Downloads" section of 10X's website, that Exhibit 33 appears to be an excerpt of a version of the "Installation" section of 10X's website, that Exhibit 34 appears to be an excerpt of a version of the "Products" section of 10X's website, that Exhibit 35 appears to be an excerpt of a version of the "Community" section of 10X's website, and that Exhibit 36 appears to be an excerpt of a version of the "Software" section of 10X's website. 10X admits that Exhibits 34 and 35 contain, in part, text selectively contained within certain of the quotations in paragraph 64. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 64 of the SAC.
 - 65. 10X denies each and every allegation contained in paragraph 65 of the SAC.
 - 66. 10X denies each and every allegation contained in paragraph 66 of the SAC.
 - 67. 10X denies each and every allegation contained in paragraph 67 of the SAC.
 - 68. 10X denies each and every allegation contained in paragraph 68 of the SAC.

COUNT IV (BY RAINDANCE AND THE UNIVERSITY OF CHICAGO)

- 69. 10X repeats and incorporates by reference each of its responses to paragraphs 1 through 26 above.
- 70. 10X admits that Exhibit 15 (not Exhibit 14 as stated in paragraph 70) appears to be a copy of U.S. Patent No. 8,822,148 titled "Method of Performing PCR Reaction in Continuously Flowing Microfluidic Plugs" (the "'148 patent"), which states on its face that it was issued on September 2, 2014. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 70 of the SAC.
- 71. 10X admits that Rustem F. Ismagilov, Joshua David Tice, Cory John Gerdts, and Bo Zheng are listed as inventors on the face of the '148 patent and that the University of Chicago

is listed as the assignee on the face of the '148 patent. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 71 of the SAC.

- 72. 10X lacks sufficient knowledge or information to form a belief as to the truth or falsity of the allegations set forth in paragraph 72 and on that basis denies them.
- 73. 10X admits that Exhibit 20 purports to be a claim chart. Exhibit 20 cites to Exhibits 4, 5, 15, 37, 39, 40, 41 and 42. 10X admits that Exhibit 4 appears to be an audio and video copy of a webinar, titled "Unlock Powerful Genomics Insights with Linked-Reads: Introducing the GemCode Platform," that Exhibit 5 appears to be a copy of an article titled "Haplotyping germline and cancer genomes with high-throughput linked-read sequencing," that Exhibit 15 (not Exhibit 14 as stated in Exhibit 20) appears to be a copy of U.S. Patent No. 8,822,148 (the "'148 patent"), that Exhibit 37 appears to be a copy of a slide titled "High-Throughput GEM Generation," that Exhibit 39 appears to be excerpts of versions of the "Technology" and "Products" sections of 10X's website, that Exhibit 40 appears to be a copy of a provisional patent application titled "Fluidic Devices, Systems, and Methods for Encapsulating and Partitioning Reagents, and Applications of the Same," that Exhibit 41 appears to be a copy of an article titled "AGBT16 10X Genomics workshop," and that Exhibit 42 appears to be a copy of U.S. Patent Application Publication No. US 2015/0005199. 10X admits that Exhibits 4, 5, 15, 37, 39, 40, 41 and 42 contain, in part, text and images selectively contained within certain of the quotations in Exhibits 20. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 73 of the SAC, including each and every allegation contained in Exhibit 20 to the SAC.
- 74. 10X admits that it has had knowledge of the '148 patent since at least the filing of the Complaint in this litigation. 10X admits that Exhibit 23 appears to be a copy of an

"Information Disclosure Statement By Applicant" filed in Application No. 13/966,150, which is titled "Capsule Array Devices and Methods of Use;" that Exhibit 24 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/104,650, which is titled "Methods and Systems for Processing Polynucleotides;" that Exhibit 25 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/175,935, which is titled "Partitioning And Processing of Analytes and Other Species;" and that Exhibit 26 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/175,973, which is titled "Polynucleotide Barcode Generation." 10X admits that each Ismagilov patent purports to claim priority to U.S. Provisional Application No. 60/379,927. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 74 of the SAC.

- 75. 10X denies each and every allegation contained in paragraph 75 of the SAC.
- 76. 10X admits that Exhibit 8 appears to be an excerpt of a version of the "Applications" section of 10X's website and that Exhibit 6 appears to be a copy of a version of a product brochure for the Chromium™ Controller titled "Introducing the Chromium™ System: One system, one workflow, powerful new sequencing applications." 10X admits that Exhibits 8 and 6 contain, in part, text selectively contained within certain of the quotations in paragraph 76. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 76 of the SAC.
- 77. 10X admits that Exhibit 29 appears to be a copy of a document titled "10X Genomics Announces Collaboration with QIAGEN, N.V. for Co-Marketing and Co-Development of Sequencing and Single Cell Analysis Workflows and Informatics Solutions," that Exhibit 30 appears to be a copy of a document titled "10X Genomics Announces Co-

Marketing Partnership with Illumina for Linked-Read Sequencing," and that Exhibit 31 appears to be a copy of a document titled "Agilent Technologies and 10X Genomics Announce Collaboration to Develop a Premium Exome." 10X admits that Exhibits 29, 30, and 31 contain, in part, text selectively contained within certain of the quotations in paragraph 77. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 77 of the SAC.

- 78. 10X admits that Exhibit 32 appears to be an excerpt of a version of the "Downloads" section of 10X's website, that Exhibit 33 appears to be an excerpt of a version of the "Installation" section of 10X's website, that Exhibit 34 appears to be an excerpt of a version of the "Products" section of 10X's website, that Exhibit 35 appears to be an excerpt of a version of the "Community" section of 10X's website, and that Exhibit 36 appears to be an excerpt of a version of the "Software" section of 10X's website. 10X admits that Exhibits 34 and 35 contain, in part, text selectively contained within certain of the quotations in paragraph 78. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 78 of the SAC.
 - 79. 10X denies each and every allegation contained in paragraph 79 of the SAC.
 - 80. 10X denies each and every allegation contained in paragraph 80 of the SAC.
 - 81. 10X denies each and every allegation contained in paragraph 81 of the SAC.
 - 82. 10X denies each and every allegation contained in paragraph 82 of the SAC.

COUNT V (BY RAINDANCE AND THE UNIVERSITY OF CHICAGO)

- 83. 10X repeats and incorporates by reference each of its responses to paragraphs 1 through 26 above.
- 84. 10X admits that Exhibit 16 (not Exhibit 15 as stated in paragraph 84) appears to be a copy of U.S. Patent No. 8,889,083 titled "Device and Method for Pressure-Driven Plug Transport and Reaction" (the "'083 patent"), which states on its face that it was issued on

November 18, 2014. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 84 of the SAC.

- 85. 10X admits that Rustem F. Ismagilov, Joshua David Tice, Helen Song, and Lewis Spencer Roach, Jr. are listed as inventors on the face of the '083 patent and that the University of Chicago is listed as the assignee on the face of the '083 patent. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 85 of the SAC.
- 86. 10X lacks sufficient knowledge or information to form a belief as to the truth or falsity of the allegations set forth in paragraph 86 and on that basis denies them.
- 87. 10X admits that Exhibit 21 purports to be a claim chart. Exhibit 21 cites to Exhibits 4, 5, 16, 37, 38, 39, 40, 41 and 42. 10X admits that Exhibit 4 appears to be an audio and video copy of a webinar, titled "Unlock Powerful Genomics Insights with Linked-Reads: Introducing the GemCode Platform," that Exhibit 5 appears to be a copy of an article titled "Haplotyping germline and cancer genomes with high-throughput linked-read sequencing," that Exhibit 16 (not Exhibit 15 and stated in Exhibit 21) appears to be a copy of U.S. Patent No. 8,889,083 (the "'083 patent"), that Exhibit 37 appears to be a copy of a slide titled "High-Throughput GEM Generation," that Exhibit 38 appears to be an audio and video copy of a presentation titled "Long Range Applications with Short Read Sequencing," that Exhibit 39 appears to be excerpts of versions of the "Technology" and "Products" sections of 10X's website, that Exhibit 40 appears to be a copy of a provisional patent application titled "Fluidic Devices, Systems, and Methods for Encapsulating and Partitioning Reagents, and Applications of the Same," that Exhibit 41 appears to be a copy of an article titled "AGBT16 10X Genomics workshop," and that Exhibit 42 appears to be a copy of U.S. Patent Application Publication No. US 2015/0005199. 10X admits that Exhibits 4, 5, 16, 37, 38, 39, 40, 41 and 42 contain, in part,

text and images selectively contained within certain of the quotations in Exhibit 21. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 87 of the SAC, including each and every allegation contained in Exhibit 21 to the SAC.

- 88. 10X admits that it has had knowledge of the '083 patent since at least the filing of the Complaint in this litigation. 10X admits that Exhibit 23 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 13/966,150, which is titled "Capsule Array Devices and Methods of Use;" that Exhibit 24 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/104,650, which is titled "Methods and Systems for Processing Polynucleotides;" that Exhibit 25 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/175,935, which is titled "Partitioning And Processing of Analytes and Other Species;" and that Exhibit 26 appears to be a copy of an "Information Disclosure Statement By Applicant" filed in Application No. 14/175,973, which is titled "Polynucleotide Barcode Generation." 10X admits that each Ismagilov patent purports to claim priority to U.S. Provisional Application No. 60/379,927. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 88 of the SAC.
 - 89. 10X denies each and every allegation contained in paragraph 89 of the SAC.
- 90. 10X admits that Exhibit 8 appears to be an excerpt of a version of the "Applications" section of 10X's website and that Exhibit 6 appears to be a copy of a version of a product brochure for the ChromiumTM Controller titled "Introducing the ChromiumTM System: One system, one workflow, powerful new sequencing applications." 10X admits that Exhibits 8 and 6 contain, in part, text selectively contained within certain of the quotations in paragraph 90.

Except as expressly admitted, 10X denies each and every allegation contained in paragraph 90 of the SAC.

- 91. 10X admits that Exhibit 29 appears to be a copy of a document titled "10X Genomics Announces Collaboration with QIAGEN, N.V. for Co-Marketing and Co-Development of Sequencing and Single Cell Analysis Workflows and Informatics Solutions," that Exhibit 30 appears to be a copy of a document titled "10X Genomics Announces Co-Marketing Partnership with Illumina for Linked-Read Sequencing," and that Exhibit 31 appears to be a copy of a document titled "Agilent Technologies and 10X Genomics Announce Collaboration to Develop a Premium Exome." 10X admits that Exhibits 29, 30, and 31 contain, in part, text selectively contained within certain of the quotations in paragraph 91. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 91 of the SAC.
- 92. 10X admits that Exhibit 32 appears to be an excerpt of a version of the "Downloads" section of 10X's website, that Exhibit 33 appears to be an excerpt of a version of the "Installation" section of 10X's website, that Exhibit 34 appears to be an excerpt of a version of the "Products" section of 10X's website, that Exhibit 35 appears to be an excerpt of a version of the "Community" section of 10X's website, and that Exhibit 36 appears to be an excerpt of a version of the "Software" section of 10X's website. 10X admits that Exhibits 34 and 35 contain, in part, text selectively contained within certain of the quotations in paragraph 92. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 92 of the SAC.
 - 93. 10X denies each and every allegation contained in paragraph 93 of the SAC.
 - 94. 10X denies each and every allegation contained in paragraph 94 of the SAC.
 - 95. 10X denies each and every allegation contained in paragraph 95 of the SAC.
 - 96. 10X denies each and every allegation contained in paragraph 96 of the SAC.

97. 10X denies each and every allegation contained in paragraph 97 of the SAC.

COUNT VI (BY RAINDANCE)

- 98. 10X repeats and incorporates by reference each of its responses to paragraphs 1 through 26 above.
- 99. 10X admits that Exhibit 14 (not Exhibit 16 as referenced in paragraph 99) appears to be a copy of U.S. Patent No. 8,658,430 titled "Manipulating Droplet Size" (the "'430 patent"), which states on its face that it was issued on February 25, 2014. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 99 of the SAC.
- 100. 10X admits that Benjamin J. Miller, Qun Zhong, and Darren Roy Link are listed as inventors on the face of the '430 patent and that RainDance is listed as the assignee on the face of the '430 patent. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 100 of the SAC.
- Exhibits 4, 5, 37, 39, and 40. 10X admits that Exhibit 4 appears to be an audio and video copy of a webinar, titled "Unlock Powerful Genomics Insights with Linked-Reads: Introducing the GemCode Platform," that Exhibit 5 appears to be a copy of an article titled "Haplotyping germline and cancer genomes with high-throughput linked-read sequencing," that Exhibit 37 appears to be a copy of a slide titled "High-Throughput GEM Generation," that Exhibit 39 appears to excerpts of versions of the "Technology" and "Products" sections of 10X's website, and that Exhibit 40 appears to be a copy of a provisional patent application titled "Fluidic Devices, Systems, and Methods for Encapsulating and Partitioning Reagents, and Applications of the Same." 10X admits that Exhibits 4, 5, 37, 39, and 40 contain, in part, text and images selectively contained within certain of the quotations in Exhibit 22. Except as expressly

admitted, 10X denies each and every allegation contained in paragraph 101 of the SAC, including each and every allegation contained in Exhibit 22 to the SAC.

- 102. 10X admits that is has had knowledge of the '430 patent since at least the filing of the First Amended Complaint in this litigation. 10X admits that its chief operating officer, Kevin Ness, has on at least one occasion interacted with Darren Link. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 102 of the SAC.
 - 103. 10X denies each and every allegation contained in paragraph 103 of the SAC.
- 104. 10X admits that Exhibit 8 appears to be an excerpt of a version of the "Applications" section of 10X's website and that Exhibit 6 appears to be a copy of a version of a product brochure for the Chromium™ Controller titled "Introducing the Chromium™ System: One system, one workflow, powerful new sequencing applications." 10X admits that Exhibits 8 and 6 contain, in part, text selectively contained within certain of the quotations in paragraph 104. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 104 of the SAC.
- 105. 10X admits that Exhibit 29 appears to be a copy of a document titled "10X Genomics Announces Collaboration with QIAGEN, N.V. for Co-Marketing and Co-Development of Sequencing and Single Cell Analysis Workflows and Informatics Solutions," that Exhibit 30 appears to be a copy of a document titled "10X Genomics Announces Co-Marketing Partnership with Illumina for Linked-Read Sequencing," and that Exhibit 31 appears to be a copy of a document titled "Agilent Technologies and 10X Genomics Announce Collaboration to Develop a Premium Exome." 10X admits that Exhibits 29, 30, and 31 contain, in part, text selectively contained within certain of the quotations in paragraph 105. Except as

expressly admitted, 10X denies each and every allegation contained in paragraph 105 of the SAC.

106. 10X admits that Exhibit 32 appears to be an excerpt of a version of the "Downloads" section of 10X's website, that Exhibit 33 appears to be an excerpt of a version of the "Installation" section of 10X's website, that Exhibit 34 appears to be an excerpt of a version of the "Products" section of 10X's website, that Exhibit 35 appears to be an excerpt of a version of the "Community" section of 10X's website, and that Exhibit 36 appears to be an excerpt of a version of the "Software" section of 10X's website. 10X admits that Exhibits 34 and 35 contain, in part, text selectively contained within certain of the quotations in paragraph 106. Except as expressly admitted, 10X denies each and every allegation contained in paragraph 106 of the SAC.

- 107. 10X denies each and every allegation contained in paragraph 107 of the SAC.
- 108. 10X denies each and every allegation contained in paragraph 108 of the SAC.
- 109. 10X denies each and every allegation contained in paragraph 109 of the SAC.
- 110. 10X denies each and every allegation contained in paragraph 110 of the SAC.

RESPONSE TO PLAINTIFFS' PRAYER FOR RELIEF

10X denies that Plaintiffs, whether individually or collectively, are entitled to any of the relief requested in the SAC.

DEFENSES

Without assuming any burden of proof that it would not otherwise bear, 10X asserts the defenses identified below. 10X reserves the right to amend or supplement this Answer with additional defenses as further information is obtained. 10X asserts each of these defenses in the alternative, without admitting that 10X is in any way liable to Plaintiffs, that Plaintiffs have been

or will be injured or damaged in any way, or that Plaintiffs are entitled to any relief whatsoever. As a defense to the SAC and each and every allegation contained therein, 10X alleges as follows:

FIRST DEFENSE

(Failure to State a Claim for Relief)

1. The SAC fails to state a claim upon which relief can be granted. Plaintiffs' claims fail to allege facts sufficient to state a claim for relief against 10X.

SECOND DEFENSE

(Non-Infringement)

2. 10X has not directly or indirectly infringed, literally or under the doctrine of equivalents, any valid and enforceable claim of the Asserted Patents.

THIRD DEFENSE

(Invalidity)

3. The claims of the Asserted Patents are invalid or void for failure to meet the conditions of patentability set forth in 35 U.S.C. §§ 101 *et seq.*, including more particularly failure to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103, and 112 thereof, or the Rules and Regulations of the U.S. Patent & Trademark Office set forth in Title 37 of the Code of Federal Regulations.

FOURTH DEFENSE

(Bar to Damages and Failure to Provide Notice)

4. Plaintiffs' claims for damages are barred, in whole or in part, under 35 U.S.C. §§ 286, 287, or 288. To the extent that Plaintiffs failed to meet the requirements of 35 U.S.C. § 287, Plaintiffs are precluded from seeking damages from 10X for any and all alleged infringement prior to the date of notice of any alleged infringement.

FIFTH DEFENSE

(Prosecution History Estoppel and Disclaimer)

5. Plaintiffs are barred by the doctrine of prosecution history estoppel from asserting disclaimed claim constructions or alleging causes of action for infringement of the Asserted Patents in light of arguments and amendments made to obtain allowance of the applications that issued as the Asserted Patents and related applications.

SIXTH DEFENSE

(Limits on Doctrine of Equivalents)

6. To the extent that Plaintiffs' alleged causes of action for infringement of the Asserted Patents contradict statements made to the U.S. Patent and Trademark Office in obtaining the Asserted Patents, or related patents, Plaintiffs are barred under the doctrine of prosecution history estoppel or other limits to the doctrine of equivalents, and Plaintiffs are estopped from claiming that the Asserted Patents cover any accused 10X product.

SEVENTH DEFENSE

(No Equitable Relief)

7. To the extent that Plaintiffs are entitled to any relief, there is an adequate remedy at law; thus, no basis exists for Plaintiffs' request for equitable relief.

EIGHTH DEFENSE

(Estoppel)

8. Plaintiffs' claims are barred by the doctrine of estoppel.

NINTH DEFENSE

(Laches)

9. Plaintiffs' claims are barred by the doctrine of laches.

TENTH DEFENSE

(Unclean Hands)

10. Plaintiffs' claims are barred by unclean hands.

ELEVENTH DEFENSE

(Waiver)

11. Plaintiffs' claims are barred by the doctrines of express and implied waiver.

10X'S PRAYER FOR RELIEF

WHEREFORE, 10X respectfully requests the following:

- A. A finding that 10X does not infringe, and has not infringed, contributed to the infringement of, and/or induced the infringement of any valid claim of the Asserted Patents;
- B. A finding that the claims of the Asserted Patents are invalid, void and/or unenforceable;
- C. The entry of judgment on Plaintiffs' SAC in favor of 10X, and against Plaintiffs, with Plaintiffs being awarded no relief of any kind on the SAC;
- D. A determination that this is an exceptional case under 35 U.S.C. § 285 and awarding attorneys' fees, expenses, and costs to 10X in this action; and
- E. Such other and further relief as the Court may deem just, proper and equitable under the circumstances.

COUNTERCLAIMS

10X Genomics, Inc. ("10X") brings these counterclaims against RainDance Technologies, Inc. ("RainDance") and the University of Chicago (collectively, the "Counterclaim Defendants"), and alleges as follows:

THE PARTIES

- 1. 10X is a corporation organized and existing under the laws of the State of Delaware, having its principal place of business at 7068 Koll Center Parkway, Suite 401, Pleasanton, CA 94566.
- 2. 10X is informed and believes, and on that basis alleges, that RainDance is a corporation organized and existing under the laws of the State of Delaware, having a principal place of business at 749 Middlesex Turnpike, Billerica, MA 01821.
- 3. 10X is informed and believes, and on that basis alleges, that the University of Chicago is an Illinois institution with a principal place of business at 5801 S. Ellis Ave., Chicago, Illinois 60637.

JURISDICTION AND VENUE

- 4. This action arises under the patent laws of the United States of America, 35 U.S.C. § 1 *et seq*. This Court has subject matter jurisdiction over these Counterclaims pursuant to 28 U.S.C. §§ 1331, 1338(a), 2201 and 2202.
- 5. This Court has personal jurisdiction over RainDance and the University of Chicago at least because they invoked the jurisdiction of this Court by filing this action.
- 6. Venue in this judicial district is proper over these Counterclaims pursuant to 28 U.S.C. §§ 1391(b) and (c).

BACKGROUND

7. Founded in 2012, 10X is a small biotechnology start-up at the forefront of DNA sequencing technology. In 2015, 10X launched a revolutionary sequencing platform that dramatically upgrades the existing capabilities of current DNA sequencers, allowing researchers to access previously inaccessible genetic information in an easy and cost-effective manner.

- 8. On or about March 25, 2016 Counterclaim Defendants filed a Second Amended Complaint ("SAC") against 10X, asserting infringement of six patents.
- 9. In the SAC, Counterclaim Defendants allege that the University of Chicago is the owner of U.S. Patent Nos. 7,129,091 (the "'091 patent); 8,304,193 (the "'193 patent"); 8,329,407 (the "'407 patent"); 8,822,148 (the "'148 patent); and 8,889,083 (the "'083 patent") (collectively, the "Ismagilov patents"), and that RainDance is an exclusive licensee of these patents. Further, in the SAC RainDance alleges that RainDance is the owner of U.S. Patent No. 8,658,430 (the "'430 patent").
- 10. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the Ismagilov patents, and RainDance has expressly accused 10X of infringing the '430 patent. 10X has denied each and every such allegation.
- 11. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to the validity and infringement of the Ismagilov patents and the '430 patent.
- 12. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect to the Ismagilov patents and the '430 patent.

FIRST COUNTERCLAIM

(Declaratory Judgment of Non-Infringement of the '091 Patent)

- 13. 10X incorporates herein by reference the allegations set forth in paragraphs 1-12 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
- 14. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the '091 patent.

- 15. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to infringement of the '091 patent.
- 16. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect the '091 patent.
- 17. By this Counterclaim, 10X seeks a judicial declaration and determination that 10X does not infringe and has not directly or indirectly infringed, either literally or under the doctrine of equivalents, contributed to the infringement of, or induced the infringement of any valid claim of the '091 patent, and is not liable for any alleged infringement of the '091 patent.

SECOND COUNTERCLAIM

(Declaratory Judgment of Invalidity of the '091 Patent)

- 18. 10X incorporates herein by reference the allegations set forth in paragraphs 1-17 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
- 19. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the '091 patent.
- 20. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to the validity of the '091 patent.
- 21. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect the '091 patent.
- 22. By this Counterclaim, 10X seeks a judicial declaration and determination that one or more claims of the '091 patent are invalid for failing to comply with the patent law provisions

of the United States, as codified in Title 35 of the United States Code, including failing to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103, and 112 thereof, or the Rules and Regulations of the U.S. Patent & Trademark Office set forth in Title 37 of the Code of Federal Regulations.

By way of example only, claims 1, 2, 5-11, 13, 14, 21-26, 28-43, 45, 46, and 49-58 of the '091 patent are invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least U.S. Patent Application Publication No. US 2002/0058322 ("Quake"). As another example, claims 1, 2, 5-14, 21-26, 28-46, and 49-58 are invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake and Kenis *et al.*, *Microfabrication Inside Capillaries Using Multiphase Laminar Flow Patterning*, 285 SCIENCE 83 (1999) ("Kenis"). As another example, claim 3 is invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake and U.S. Patent No. 6,524,456 ("Ramsey"). As another example, claims 4 and 27 are invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake, Ramsey, and Green *et al.*, *Perfluorocarbon Fluids*, *in* ORGANOFLUORINE CHEMISTRY (Banks et al., eds., 1994) ("Green"). As another example, claim 3 is invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake, Kenis and Ramsey. As another example, claims 4 and 27 are invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake, Kenis and Ramsey. As another example, claims 4 and 27 are invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake, Kenis and Ramsey.

THIRD COUNTERCLAIM

(Declaratory Judgment of Non-Infringement of the '193 Patent)

- 24. 10X incorporates herein by reference the allegations set forth in paragraphs 1-23 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
- 25. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the '193 patent.

- 26. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to infringement of the '193 patent.
- 27. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect the '193 patent.
- 28. By this Counterclaim, 10X seeks a judicial declaration and determination that 10X does not infringe and has not directly or indirectly infringed, either literally or under the doctrine of equivalents, contributed to the infringement of, or induced the infringement of any valid claim of the '193 patent, and is not liable for any alleged infringement of the '193 patent.

FOURTH COUNTERCLAIM

(Declaratory Judgment of Invalidity of the '193 Patent)

- 29. 10X incorporates herein by reference the allegations set forth in paragraphs 1-28 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
- 30. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the '193 patent.
- 31. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to the validity of the '193 patent.
- 32. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect the '193 patent.
- 33. By this Counterclaim, 10X seeks a judicial declaration and determination that one or more claims of the '193 patent are invalid for failing to comply with the patent law provisions

of the United States, as codified in Title 35 of the United States Code, including failing to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103, and 112 thereof, or the Rules and Regulations of the U.S. Patent & Trademark Office set forth in Title 37 of the Code of Federal Regulations.

34. By way of example only, claims 1-5, 7-9, and 11 of the '193 patent are invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake and U.S. Patent No. 6,033,880 ("Haff"). As another example, claim 6 is invalid, *inter alia*, under 35 U.S.C. § 103 over at least Quake, Haff, and Ramsey. These examples are preliminary and merely exemplary and are not intended to limit 10X's ability to assert additional bases of invalidity.

FIFTH COUNTERCLAIM

(Declaratory Judgment of Non-Infringement of the '407 Patent)

- 35. 10X incorporates herein by reference the allegations set forth in paragraphs 1-34 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
- 36. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the '407 patent.
- 37. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to infringement of the '407 patent.
- 38. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect the '407 patent.
- 39. By this Counterclaim, 10X seeks a judicial declaration and determination that 10X does not infringe and has not directly or indirectly infringed, either literally or under the

doctrine of equivalents, contributed to the infringement of, or induced the infringement of any valid claim of the '407 patent, and is not liable for any alleged infringement of the '407 patent.

SIXTH COUNTERCLAIM

(Declaratory Judgment of Invalidity of the '407 Patent)

- 40. 10X incorporates herein by reference the allegations set forth in paragraphs 1-39 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
- 41. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the '407 patent.
- 42. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to the validity of the '407 patent.
- 43. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect the '407 patent.
- 44. By this Counterclaim, 10X seeks a judicial declaration and determination that one or more claims of the '407 patent are invalid for failing to comply with the patent law provisions of the United States, as codified in Title 35 of the United States Code, including failing to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103, and 112 thereof, or the Rules and Regulations of the U.S. Patent & Trademark Office set forth in Title 37 of the Code of Federal Regulations.
- 45. By way of example only, claims 1-10, 12, and 13 of the '407 patent are invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake and Haff. As another example, claim 11 is invalid, *inter alia*, under 35 U.S.C. § 103 over at least Quake, Haff, and Ramsey.

These examples are preliminary and merely exemplary and are not intended to limit 10X's ability to assert additional bases of invalidity.

SEVENTH COUNTERCLAIM

(Declaratory Judgment of Non-Infringement of the '148 Patent)

- 46. 10X incorporates herein by reference the allegations set forth in paragraphs 1-45 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
- 47. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the '148 patent.
- 48. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to infringement of the '148 patent.
- 49. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect the '148 patent.
- 50. By this Counterclaim, 10X seeks a judicial declaration and determination that 10X does not infringe and has not directly or indirectly infringed, either literally or under the doctrine of equivalents, contributed to the infringement of, or induced the infringement of any valid claim of the '148 patent, and is not liable for any alleged infringement of the '148 patent.

EIGHTH COUNTERCLAIM

(Declaratory Judgment of Invalidity of the '148 Patent)

- 51. 10X incorporates herein by reference the allegations set forth in paragraphs 1-50 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
- 52. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the '148 patent.

- 53. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to the validity of the '148 patent.
- 54. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect the '148 patent.
- 55. By this Counterclaim, 10X seeks a judicial declaration and determination that one or more claims of the '148 patent are invalid for failing to comply with the patent law provisions of the United States, as codified in Title 35 of the United States Code, including failing to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103, and 112 thereof, or the Rules and Regulations of the U.S. Patent & Trademark Office set forth in Title 37 of the Code of Federal Regulations.
- 56. By way of example only, claims 1-8 of the '148 patent are invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake and Haff. As another example, claim 6 is invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake, Haff, and Ramsey. This example is preliminary and merely exemplary and is not intended to limit 10X's ability to assert additional bases of invalidity.

NINTH COUNTERCLAIM

(Declaratory Judgment of Non-Infringement of the '083 Patent)

- 57. 10X incorporates herein by reference the allegations set forth in paragraphs 1-56 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
- 58. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the '083 patent.

- 59. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to infringement of the '083 patent.
- 60. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect the '083 patent.
- 61. By this Counterclaim, 10X seeks a judicial declaration and determination that 10X does not infringe and has not directly or indirectly infringed, either literally or under the doctrine of equivalents, contributed to the infringement of, or induced the infringement of any valid claim of the '083 patent, and is not liable for any alleged infringement of the '083 patent.

TENTH COUNTERCLAIM

(Declaratory Judgment of Invalidity of the '083 Patent)

- 62. 10X incorporates herein by reference the allegations set forth in paragraphs 1-61 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
- 63. In their SAC, RainDance and the University of Chicago have expressly accused 10X of infringing the '083 patent.
- 64. As a result of RainDance's and the University of Chicago's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the Counterclaim Defendants, with regard to the validity of the '083 patent.
- 65. A judicial declaration and determination is necessary and appropriate at this time given Counterclaim Defendants' allegations and in order that 10X may ascertain its rights and duties with respect the '083 patent.
- 66. By this Counterclaim, 10X seeks a judicial declaration and determination that one or more claims of the '083 patent are invalid for failing to comply with the patent law provisions

of the United States, as codified in Title 35 of the United States Code, including failing to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103, and 112 thereof, or the Rules and Regulations of the U.S. Patent & Trademark Office set forth in Title 37 of the Code of Federal Regulations.

67. By way of example only, claims 1-31 of the '083 patent are invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake and Ramsey. As another example, claim 18 and 24 are invalid, *inter alia*, under 35 U.S.C. § 103 as obvious over at least Quake, Ramsey and Green. This example is preliminary and merely exemplary and is not intended to limit 10X's ability to assert additional bases of invalidity.

ELEVENTH COUNTERCLAIM

(Declaratory Judgment of Non-Infringement of the '430 Patent)

- 68. 10X incorporates herein by reference the allegations set forth in Paragraphs 1-67 inclusive, set forth above as if fully set forth herein.
 - 69. In its SAC, RainDance has expressly accused 10X of infringing the '430 patent.
- 70. As a result of RainDance's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the RainDance, with regard to infringement of the '430 patent.
- 71. A judicial declaration and determination is necessary and appropriate at this time given RainDance's allegations and in order that 10X may ascertain its rights and duties with respect the '430 patent.
- 72. By this Counterclaim, 10X seeks a judicial declaration and determination that 10X does not infringe and has not directly or indirectly infringed, either literally or under the doctrine of equivalents, contributed to the infringement of, or induced the infringement of any valid claim of the '430 patent, and is not liable for any alleged infringement of the '430 patent.

TWELFTH COUNTERCLAIM

(Declaratory Judgment of Invalidity of the '430 Patent)

- 73. 10X incorporates herein by reference the allegations set forth in paragraphs 1-72 of its Counterclaims, inclusive, set forth above as if fully set forth herein.
 - 74. In its SAC, RainDance has expressly accused 10X of infringing the '430 patent.
- 75. As a result of RainDance's actions and statements, including the filing of the SAC, an actual and justiciable controversy exists between 10X and the RainDance, with regard to the validity of the '430 patent.
- 76. A judicial declaration and determination is necessary and appropriate at this time given RainDance's allegations and in order that 10X may ascertain its rights and duties with respect the '430 patent.
- 77. By this Counterclaim, 10X seeks a judicial declaration and determination that one or more claims of the '430 patent are invalid for failing to comply with the patent law provisions of the United States, as codified in Title 35 of the United States Code, including failing to comply with one or more of the requirements of 35 U.S.C. §§ 101, 102, 103, and 112 thereof, or the Rules and Regulations of the U.S. Patent & Trademark Office set forth in Title 37 of the Code of Federal Regulations.
- 78. By way of example only, claims 1-7 and 12-17 of the '430 patent are invalid, inter alia, under 35 U.S.C. § 102 as anticipated by at least U.S. Patent Application Publication No. US 2008/0014589 ("Link"). As another example, claims 10 and 11 are invalid, inter alia, under 35 U.S.C. § 103 as obvious over at least Link. As another example, claims 8 and 9 are invalid, inter alia, under 35 U.S.C. § 103 as obvious over at least Link and Nguyen et al., Optical detection for droplet size control in microfluidic droplet-based analysis systems, 117 SENSORS AND ACTUATORS B 431 (2006).

PRAYER FOR RELIEF ON 10X'S COUNTERCLAIMS

WHEREFORE, 10X respectfully requests the following relief:

- A. A declaration that 10X has not infringed, directly or indirectly, any claim of the '091 patent;
 - B. A declaration that the '091 patent is invalid;
- C. A declaration that 10X has not infringed, directly or indirectly, any claim of the '193 patent;
 - D. A declaration that the '193 patent is invalid;
- E. A declaration that 10X has not infringed, directly or indirectly, any claim of the '407 patent;
 - F. A declaration that the '407 patent is invalid;
- G. A declaration that 10X has not infringed, directly or indirectly, any claim of the '148 patent;
 - H. A declaration that the '148 patent is invalid;
- I. A declaration that 10X has not infringed, directly or indirectly, any claim of the '083 patent;
 - J. A declaration that the '083 patent is invalid;
- K. A declaration that 10X has not infringed, directly or indirectly, any claim of the '430 patent;
 - L. A declaration that the '430 patent is invalid;
- M. A determination that this is an exceptional case under 35 U.S.C. § 285, and for an award of attorneys' fees and costs to 10X in this action, and
 - N. Such other and further relief as the Court deems just and equitable.

DEMAND FOR JURY TRIAL

Pursuant to Federal Rule of Civil Procedure 38(b), 10X hereby respectfully requests a trial by jury on all issues triable to a jury.

ASHBY & GEDDES

/s/ Andrew C. Mayo

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